

Pre-AP Biology

Instructor: Vicki Dincher vdincher@comcast.net

Course Description: Science is a way of knowing, a process for gaining knowledge and understanding of the natural world. This class places emphasis on concept understanding and analysis, discovering biology's connections to other scientific disciplines, and using scientific and laboratory skills. The science of biology focuses on the study of living things by examining the five fundamental concepts of cellular biology, genetics, ecology, evolution, and organism physiology. Students will learn scientific writing skills and also examine current biological issues in preparation for CLEP or SAT subject testing and future AP Biology coursework.

- Open to students in 9th-11th grade
- College-preparatory class leading to CLEP or SAT Subject testing and future AP Biology coursework
- Students should be ready to begin working toward college level reading and responsibility
- Weekly assignments and class notes posted the week before
- 34 weeks. Coursework begins the last week of August
- To apply, request a student application from the instructor

Cost: \$549 (does not include textbook or lab supplies)

Test Readiness: This course is designed to help the motivated student be well prepared for the SAT Biology subject test or the Biology CLEP exam. Success on these exams is dependent on student aptitude and desire/willingness to prepare for the exam. Students should complete a chemistry course before they will be ready for an AP Biology course.

Lecture Content/Live Web-ex Discussions: All course lectures are recorded and available for students to playback at their convenience. Live discussions will be held several times each month and will be recorded for those unable to attend. Regular Skype "office hours" will be listed after classes begin (survey of student time zones will determine the actual office hours) so students can reach me for immediate feedback.

Labs: Approximately ten to twelve hands-on experiments will complement the core concepts studied and fulfill the lab requirement for a high school science credit. These experiments can be completed at home (adult supervision is advised). Most use household materials, but some will also include online investigations to engage in the modern world of scientific research, examine several specimen dissections, and analyze detailed microscopic studies (microscopes strongly recommended, but not required). Suppliers for materials required for experiments not using common household materials will be provided with the course syllabus.

Student Evaluation and Feedback: Students will be graded on homework, labs, discussions, and exams. The homework will be a combination of multiple choice and short answer questions done on the course website and handouts to be completed, scanned, and uploaded. All student work will be graded and returned within one week of submission.

Communications: Course instruction occurs through e-mail, the website and video lectures. I also post podcasts and short video clips explaining course concepts as needed. Each year more interactive technology is added. I am available to students through g-chat and Skype by appointment and at regular “office hours”.

Technical needs: Broadband, high speed Internet and an e-mail account that accepts large files. Weekly assignments are downloaded as PDF files from the website. A scanner that can convert to PDF is needed to scan and upload assignments for grading.

Time Commitment: The qualified student will spend 5-7 hours per week on this class. This accounts for reading the assigned texts, answering multiple-choice questions, writing short essays and discussing class work and reading assignments with others in the forums.

Class Meeting Time: Students are not required to "meet" at a scheduled time, but all homework is due via e-mail by Sunday evenings, midnight EST. Scheduled discussion times will be recorded for those unable to attend the live discussion times. I update the website syllabus the week before and send out class updates via e-mail as needed.

Qualifications: I have an M.S. in biology. I have experience teaching at both the high school and community college level. From 1995-present, I have taught biology and physics classes (both first year and AP levels) in the classroom and have been teaching online since 2010.

Course Priorities: While priority is given to test preparation for those students who want to take the CLEP and/or SAT Biology (E or M) exams, students who do not desire to take the exams but want a solid foundation in biology will also find this class rewarding and a good preparation for a future AP Biology course. SAT or CLEP preparation will be done through complete presentation of testable content, providing review materials during the second half of the course, explaining testing strategies, and providing scored practice exams. It is my goal to expand the student’s appreciation for the amazing complexity, wonder, and diversity of the living organisms that share our planet.

Major Projects: Two projects will be completed for this course. The first is a Cell Project which gives the student several options for creating and displaying an animal cell and its organelles. The second project is the Evolution Wiki project. Working in groups students will discuss evolution and intelligent design by researching both viewpoints and creating a class-wide web wiki.

Required Texts: Biology: Exploring Life by Campbell, Williamson & Heyden; published by Pearson Prentice Hall. ISBN: 0-13-062592-2

Who should apply: Students should be in 9th, 10th or 11th grade. The well-prepared applicant also has completed a physical science and life science course in the middle school years or at the very least has had some prior instruction in biochemistry – specifically basic atomic structure, bonding, chemistry of water, and acids/bases.

To apply or ask a question regarding this class, email Vicki Dincher at vdincher@comcast.net